

Claims

1. A device for handling liquid samples, said device comprising at least one flow path and at least one zone for receiving the sample, and a transport or incubation zone, **characterized in** that said device further comprises a sink with a capacity of
5 receiving said liquid sample and supporting or controlling the flow rate of said sample through said transport or incubation zone, said sink comprising an area having projections substantially vertical to its surface, and said sink being adapted to respond to external influence regulating its capacity to receive said liquid sample.
2. The device according to claim 1, wherein two or more flow paths are provided,
10 each connected to one sink respectively, said device adapted for performing multiple analyses on one sample.
3. The device according to claim 1, wherein two or more flow paths are provided, each connected to one and the same sink, said device adapted for performing multiple analyses on one sample.
- 15 4. The device according to one of claims 2 – 3, wherein said multiple analyses are performed in parallel.
5. The device according to claim 1, wherein multiple reagents, buffers, etc can be serially added to a flow path.
6. The device according to any one of claims 1 – 5, wherein the external
20 influence regulating the capacity of said sink to receive said liquid sample is chosen among heating, cooling, irradiation with visible light, infra red irradiation, vibration, and the application of an electric current.
7. The device according to claim 6, wherein the sink can be divided into sub-sections, suitable for being serially subjected to said external influence.
- 25 8. The device according to claim 6 or 7, wherein the sink or a sub-section thereof is heated to evaporate liquid sample there from.
9. The device according to any one of claims 1 - 8, wherein one or more flow paths in fluid connection with the sink are chosen among flow paths formed as a capillary groove or open channel, a closed capillary, a tortuous path through a fibrous
30 or through a gel-like material.

10. The device according to any one of claims 1 – 8, wherein one or more flow paths in fluid connection with the sink comprise areas having substantially vertical projections.

5 11. The device according to claim 10, wherein said vertical projections have different cross section in different zones of the flow path.

12. The device according to claim 1, wherein back flow of sample is prevented by suitable design of the at least one flow path, the cross section of the substantially vertical projections, an external influence chosen among heating, cooling, irradiation with visible light, infra red irradiation, vibration, and the application of an electric
10 current, or a combination thereof, acting on at least part of said flow paths.

13. A chemical or biochemical assay involving a reaction between an analyte in a sample and one or more reagents, **characterized** in that the sample is added to a device according to any one of claims 1 – 12.

14. A chemical or biochemical assay involving a reaction between an analyte in a
15 sample and one or more reagents, **characterized** in that said reaction is performed on a device according to any one of claims 1 – 12.

15. A method for handling liquid samples, **characterized** in that a device according to any one of claims 1 – 12 is used.
